

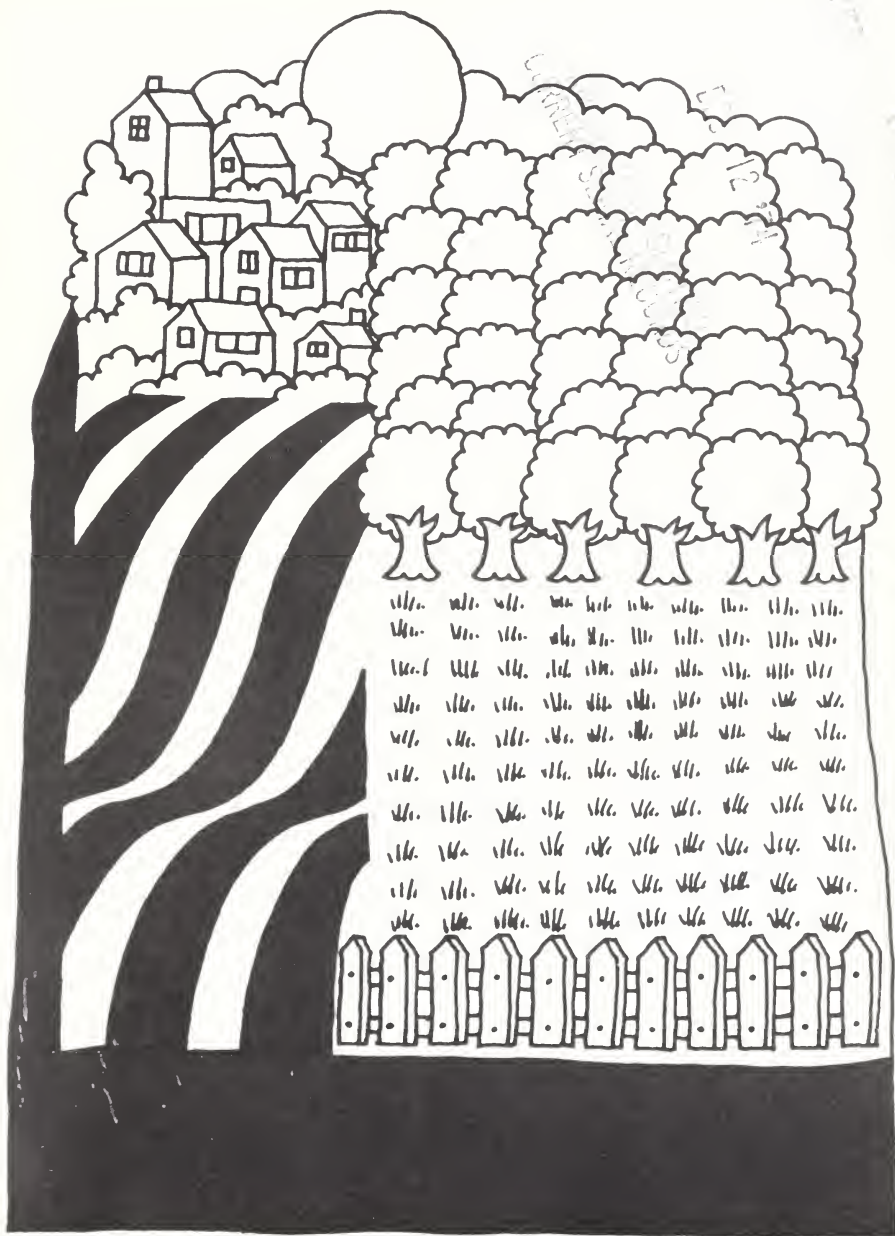
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agricultural situation

THE CROP REPORTERS MAGAZINE • AUGUST 1974
U.S. DEPARTMENT OF AGRICULTURE • STATISTICAL REPORTING SERVICE

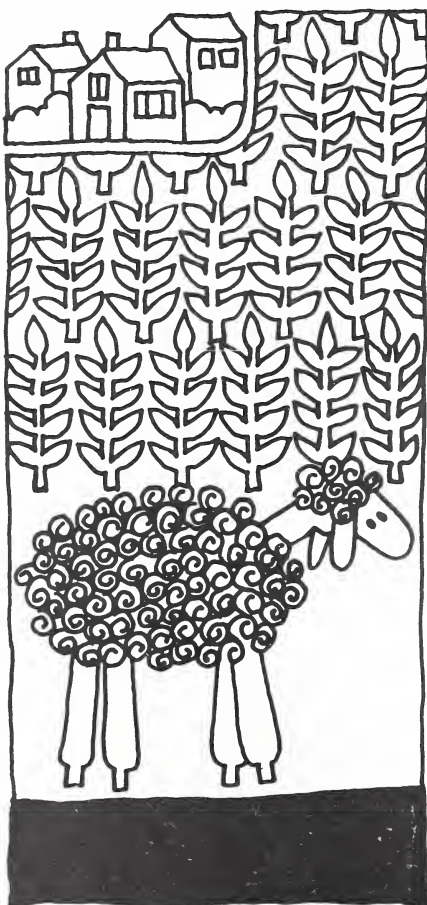


THE ACRE TAKERS

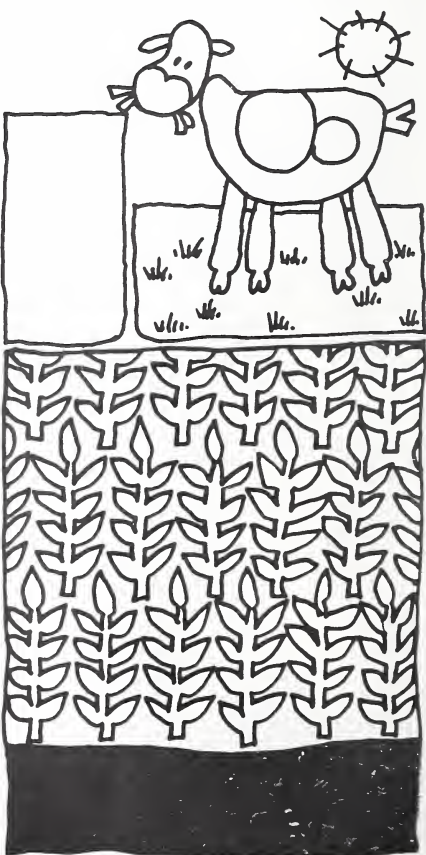
THE ACRE TAKERS

From our Nation's 2,264 million acres of land we feed, clothe, and house some 212 million people—and produce still more items for export. Just how our land area is divided up and the changing uses of agricultural land are detailed in this story.

Housing our population doesn't take much room. All the cities, towns, and suburban developments put together occupy only 35 million acres—or less than 2 percent of the country's total land area. Feeding and clothing our population requires at least 30 times more land than housing.

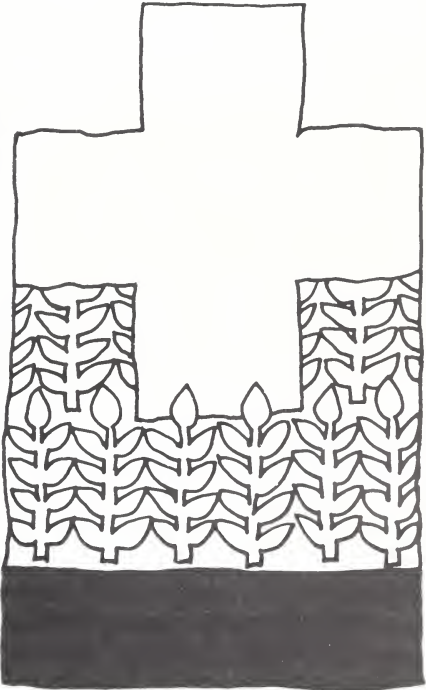
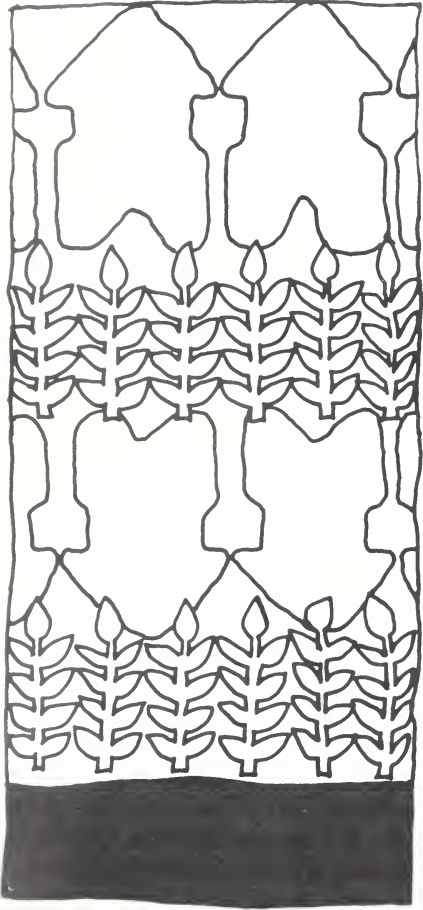


Our Nation's cropland resources cover 472 million acres—but not all of that total is actually devoted to crop production in a given year. In fact, at the time of the last agricultural census, the acreage used for crop production amounted to only 71 percent of the land available; about 18 percent of the land was used for temporary pasture and the rest was idle or in soil improvement crops.

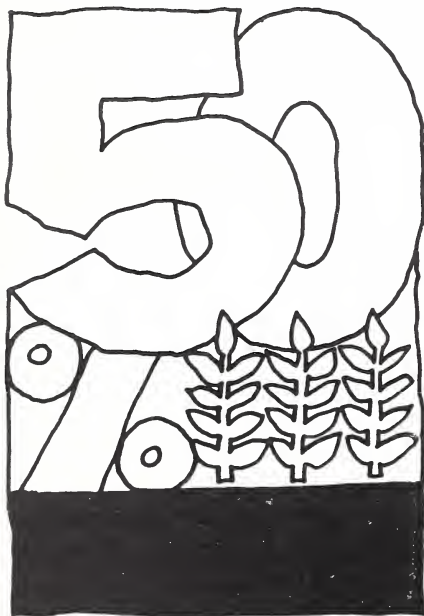


Cropland use isn't static. From 1950 to 1962, the acreage of cropland used for crops declined 15 percent as a result of Federal programs aimed at shifting cropland from production to soil conserving uses. Since 1962 crop acreage has fluctuated by several million acres, more or less in balance with crop demand.

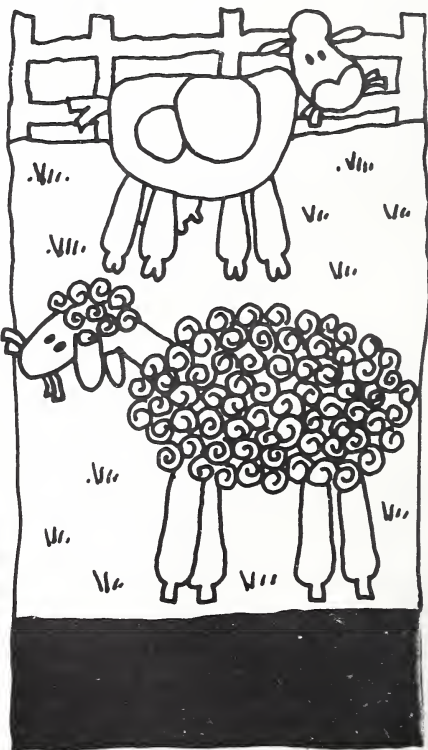
Although cropland acreages generally have been trending down since 1950, numerous localities have enjoyed gains. The biggest acreage gains occurred in the lower Mississippi Valley, central and southern High Plains, central California, and northern Montana. Not quite as large but nevertheless substantial increases also occurred in the Corn Belt, the Dakotas, Florida, and several areas of the West. In general, cropland development in the East is associated with wetland drainage and in the West with more irrigation and improved dryland farming.



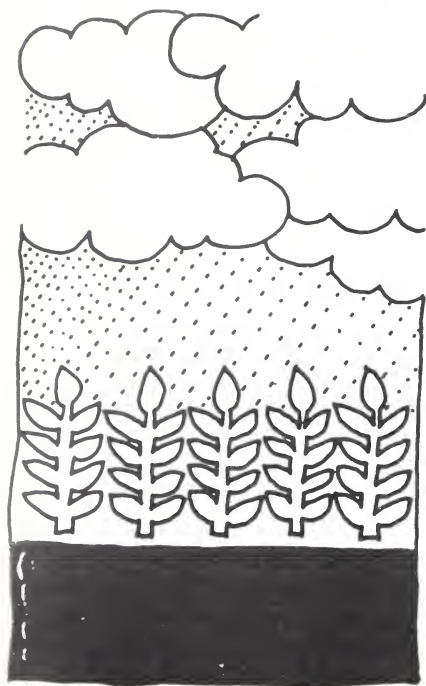
Productivity per acre of cropland used for crops has increased more than 50 percent in the past two decades—the result of a combination of factors. In general, the adjustments in the acreage used for crops have resulted in increasingly concentrated cropping of the most productive land, both on individual farms and by areas and regions. The substitution of new cropland and improvement of existing cropland by such means as land forming, drainage, and irrigation have also upgraded the acreage used for crops. To these improvements in basic land capability have been added larger inputs of fertilizer, pesticides, and herbicides; and improved plants, machinery, and equipment.



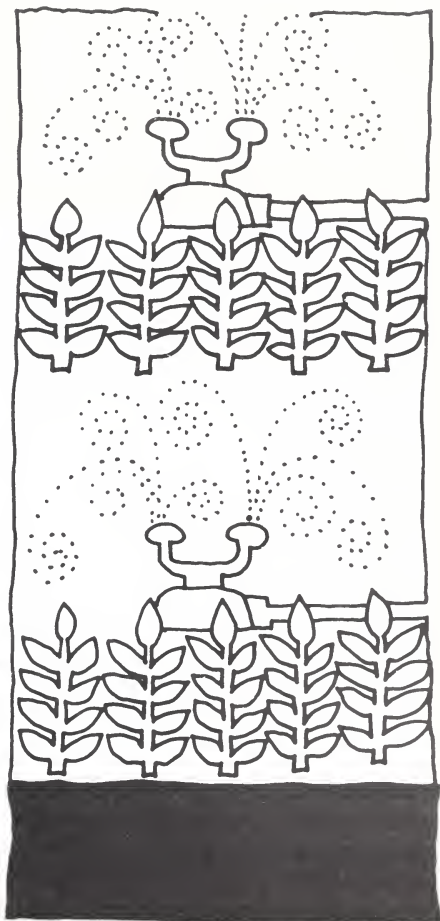
Livestock graze on about 890 million U.S. acres—roughly two-fifths of the total national land area. The amount of cropland and grassland used for pasture has dipped slightly since 1950—but there's been close to a 40-percent falloff in the forested grazing area. The result has been a 130-million acre decline in grazing space over the past two decades. However, remaining grazing acreage has been significantly upgraded by gradual substitution of better land, brush clearing, fertilization, and other means.



It takes water to make land produce. Approximately 4,700 million acre-feet of water (rain, snow, sleet, or hail) fall on the United States each year. About 70 percent of this water evaporates or is used by plants through transpiration. Out of this comes the largest agricultural water use—nonirrigated crop, pasture, and forest production. Only about 1,350 million acre-feet of this water that falls each year is available for diversion from streams and for replenishing ground water supplies. We withdrew about 370 million acre-feet of this total in 1970, roughly a third of which was for irrigation.



Irrigated acreage has grown from less than 8 million acres at the turn of the century to more than 39 million in 1969. Nearly 90 percent of our irrigated acreage is in the 17 Western States. California alone has over 7.2 million acres—or roughly a fifth the national total.



SURVEYSCOPE

To give our readers a clearer picture of the vast scope of SRS activities, Agricultural Situation presents a series of articles on special surveys undertaken in various States. While these are not national surveys, they are important to the agriculture in individual States.

"Many Ohio farmers make only one or two timber sales in a lifetime—which is why our timber price report is so important to them," states Homer Carter, statistician in charge of the Crop and Livestock Reporting Service in Columbus.

"Without this report farmers might have little or no knowledge of the current level of timber prices and values," he continues.

"That's why our office has been participating since 1960 in a special

twice-a-year survey of the prices paid to timber growers for saw logs, stumpage, pulpwood, and logs for containers or commercial veneer."

Carter's office works closely with two other State agencies in conducting the timber price survey. The statisticians are charged with the technical intricacies—developing the sample, preparing the questionnaires, summarizing, analyzing, and then publishing the data.

The actual survey work is carried out



Many Ohio farmers make only one or two timber sales in the course of their lifetimes . . .

by foresters employed by Ohio's Department of Natural Resources. These people conduct personal interviews with a pre-selected sample of over 200 sawmill operators and other timber buyers.

The distribution of the report is handled by the Ohio Department of Agriculture's Division of Markets. More than 3,000 survey reports are sent out to the Ohio timber industry and agricultural producers following each survey.

"The enumerative work for our latest survey—covering the March-May 1974 period—was conducted during the first half of June and we published the report at the end of the month," Carter notes.

"In earlier years, we asked only about purchases made in a single month period. However, we decided to expand our survey coverage to 3 months to strengthen accuracy."

"We found that many of the large sawmills in Ohio purchase enough timber during a short period to last several months. Therefore, while they might not have reported any purchases during the former 1-month period, we are able to get data from them using a 3-month base." Carter explains.

Forest products earned Ohio farmers roughly \$5½ million in 1972—and the long run outlook for timber supplies and demands in the United States will undoubtedly heighten the importance of timber earnings in years ahead.

The U.S. Forest Service's latest appraisal of timber resources and needs indicates that demands for wood products have increased 70 percent in the last three decades and similar substantial increases are expected through the end of this century.



... which is why SRS' twice-a-year survey of timber prices is of such importance to them.

NEW LUSTER TO MINK

Mink ranching, once called the jewel of U.S. agriculture, has lost considerable luster in recent years. But there are signs that the industry's future may be beginning to sparkle once again.

Production last year, at 3.0 million pelts, showed the first gain since 1969 when SRS began tracking the Nation's ranch mink crop. And breedings in 1974 indicate a further slight increase, the second year in a row that ranchers have striven to raise more kits for pelting.

Recent years have been rough ones for the mink industry—as the profit potential was dimmed by high feed and labor costs on ranches, disease losses, the popularity of fake furs, competition from cheaper foreign pelts, and to some degree the loss of mink's prestige as a status symbol.

The pinnacle of ranch mink production came in 1966 when industry sources assessed U.S. pelt output at 6.2 million skins raised by 6,000 ranchers.

However, large unsold inventories from the 1966 crop caused a sharp price plunge in 1967—a plunge which spelled the end to further expansion in the mink industry and forced a number of producers out of business.

Current output is less than half the 1966 level and ranch numbers are down even further, to only 1,329 in 1973.

Two-thirds of the Nation's ranch mink output comes from five States—Wisconsin, Minnesota, Utah, Oregon, and Illinois, listed in descending order of importance.

Wisconsin's 1973 output—which accounted for roughly a third of the national total—was up 6 percent from the year before. However, 1974 breedings were down about 2 percent from 1973.

Production trends for the other big

four mink States, as revealed by SRS' latest mink report, show:

—Minnesota ranchers cut 1973 output 1 percent from the previous year and reduced 1974 breedings by 7 percent.

—Utah's 1973 pelt output was off 1 percent from 1972 but this year ranchers boosted breedings 3 percent.

—Oregon, after an 11-percent hike in 1973 production, upped 1974 breedings by 5 percent.

—Illinois, with a constant production last year, had 5 percent larger breedings in 1974.



MINK MENUS

Finicky eaters that they are—with palates that approve only of the freshest meat, poultry, and fish—ranch mink run up quite a food bill.

In fact, what they eat represents more than half the total cost of producing mink pelts. And in recent years these costs have gotten high enough that, in combination with growing labor bills and lower pelt prices, many small-scale ranchers have simply been squeezed out of business.



In Pennsylvania, for example, roughly three-fourths of the State's mink producers went out of business between 1967 and 1970. Though most were smaller operators, the sharp dropoff in the State's output of mink pelts—from 325,000 to 159,000—indicated they accounted for a large portion of total production.

A more economical diet for mink would seem to be a must if small-scale producers are to make a comeback in Pennsylvania—which is why researchers there have focused a great deal of attention on developing a dry diet that will appeal to mink while meeting all their nutritional needs.

A prime objective in developing such dry diets for mink was to use readily available byproducts of Pennsylvania's poultry, dairy, and meat industries.

The results, to date, have been promising. In preliminary studies, mink have been reared from weaning to pelting on dry diets costing less than half as much as the conventional fresh meat diets.

Further, the dry rations are much simpler to use—doing away with the large refrigeration and costly grinding and mixing machines required on most mink farms and also eliminating the extra labor involved in thawing and feeding daily rations to individual mink.

There's a safety factor, too, since the dry rations don't spoil—an ever-present danger with fresh meat diets during hot weather.

Recent research emphasis has been placed on extending the use of the dry diets to meet mink's requirements for breeding and nursing, as well as growing and furring. The latest trials indicate that the diets are, indeed, suitable for year-round use, including the reproductive phase.

With all they've got going for them, the dry rations promise to become big items on mink menus of the future.

Breakthrough!



SPRAY VACCINES FOR MINK

Mink death losses from distemper—long a dread disease among mink ranchers—promise to be reduced sharply thanks to a spray vaccination technique developed by USDA researchers.

The initial breakthrough in developing a fast and simple process for protecting mink against distemper actually came nearly two decades ago, when USDA veterinarians first began immunizing mammals other than man with a live virus vaccine in an artificially created aerosol foam.

The researchers reasoned that in the case of mink distemper, the most logical and practical way to vaccinate was to use a weakened live virus and administer it by the natural route its virulent counterpart infects the mink—through the air.

The principle of airborne vaccination was already well known. The Chinese in the fifth century first recorded the idea when they attempted to vaccinate against smallpox by taking a bamboo straw,

dabbing an end into infected fluid, then blowing this fluid up the nose of a patient. It is not recorded how many patients survived this treatment.

In the USDA experiments, small numbers of laboratory mink inhaled the vaccine as a fine spray or aerosol and became immunized. This spray-produced immunity proved just as effective as that produced by the older method of a syringe injection.

Spray vaccination offered other advantages, too. Because the mink needed no handling during vaccination, there was less stress to animals and ranchers and there was less opportunity for the virus to spread when vaccinating during an outbreak.

(Distemper outbreaks can occur during all seasons of the year and almost all animals on a ranch will become infected, even kits as young as 3 weeks. Losses in young mink run as high as 90 percent while the mortality rate for older animals averages between 30 and 40 percent.)

Transforming the spray vaccination process from a laboratory exercise into an established procedure on commercial mink ranches awaited another breakthrough, however—the development of a cheap and practical process for administering the vaccine to large numbers of mink.

It wasn't until 1970 that vaccine manufacturers came up with a convenient portable apparatus that could be used for large scale vaccinations.

By 1972 ranchers in North America and Western Europe had spray vaccinated about 2 million mink—and the practice is expected to grow further because of its labor and cost economy.

THE RAISIN REAPERS

Working quickly, since the grapes all ripen about the same time, the workers carefully cut the bunches from the vines and then lay them down to dry on paper trays between the rows.

But picturesque as this method of harvesting raisin grapes may be, it is not a particularly practical method in today's agriculture.

A shrinking labor force and growing wage rates have prompted raisin producers to look for alternative ways of picking their crop—and recent research indicates they may be on the verge of a breakthrough.

A joint research project carried out by USDA's Western Regional Research Center and the California State University at Fresno has explored the commercial feasibility of mechanical harvesting of raisin grapes followed by sun drying.

With this method, the fruit-bearing canes are cut several days prior to harvest to start the drying process and to simplify harvesting.

The mechanical harvester then dislodges the grapes as single berries which are deposited on a continuous paper tray automatically laid behind the harvester.

In 10 to 12 days, when the grapes have dried to a moisture content of less than 16 percent, they are mechanically picked up and conveyed to bins for delivery to a processing plant for cleaning, grading, and packing.

The mechanical process eliminates several days of drying time—with hand labor the norm for the whole harvesting process is about 21 days—and thus reduces the risk of damage from insects, rodents, birds, and rain.

Preliminary cost estimates indicate the machines can shave about \$15 an acre off the bill with hand harvesting.

As far as consumer appeal goes, mechanically harvested grapes rank just about the same as hand-picked ones.

Product evaluations by a panel of consumers showed most people couldn't tell the difference between the two. Where the differences were noted, they were nearly always in favor of the mechanically harvested raisins.

Reasons for preferring one type of raisins over the other were that they had a better appearance, better flavor, higher moisture, or better texture.

EARNINGS CHAMPS

California and Iowa claimed their usual 1-2 spots in farm marketing receipts again last year, according to the preliminary income estimates released by USDA economists.

California's sales of farm commodities added up to nearly \$6.9 billion, or about 8 percent of the 50-State total of \$83.4 billion.

Iowa had \$6.7 billion, also about 8 percent of total cash receipts.

Earnings for other States in the top 10, in billions of dollars: Texas, 5.6; Illinois, 5.1; Kansas, 4.2; Nebraska and Minnesota, 3.7 each; Indiana, 2.9; Missouri, 2.6; and North Carolina, 2.3.

The 1973 leader in livestock and livestock product receipts, which totaled \$45.3 billion for the entire Nation, was Iowa (\$4.2 billion), followed by Texas (\$3.2 billion) and California (\$2.8 billion).

The champion crop earners were California (\$4.1 billion), Illinois (\$3.2 billion), and Iowa (\$2.6 billion). Total U.S. crop receipts came to \$38.2 billion.

Realized net income per farm was highest in California (\$22,978). Nevada was next (\$22,118) and North Dakota third (\$21,238).

For all States, net income per farm from farming averaged a record \$9,193, up 34 percent from 1972.

Briefings

RECENT REPORTS BY USDA OF ECONOMIC, MARKETING, AND RESEARCH DEVELOPMENTS AFFECTING FARMERS.

WHEAT SUPPLIES . . . Record wheat prices during 1973/74, favorable weather, and the lifting of planting restrictions are making for a prospective 1974 wheat crop of about 2.1 billion bushels, which would be a new record high. However, supplies during the current marketing year are up only 9% from 1973/74 because carryover stocks on July 1 were the smallest since 1948.

THE USE PICTURE . . . Domestic wheat use this season may be well above last year as high feed grain prices relative to wheat early in the year could boost wheat feeding to around 200 million bushels. However, exports and total disappearance in 1974/75 may be off somewhat from last season's 1.9 billion bushels. Currently exports are projected at over a billion bushels. USDA economists envision some drop in shipments to most regions as new crop supplies are expected to fill more of their requirements. However, world food grain stocks are very low and unfavorable world crop developments could bring on another spurt in our overseas wheat sales.

A LOOK AHEAD AT CARRYOVER . . . Current appraisals of supplies and use in 1974/75 suggest wheat stocks on July 1, 1975 could be more than double the 217-million-bushel carryover at the start of the present season. In this case, prices during 1974/75 are likely to run well under the extreme highs of 1973/74.

THE WORLD WHEAT SITUATION . . . Uncertainty hangs over the world wheat scene. There was a record 1973/74 crop, but tight world supplies and growing world demand kept imports surprisingly large. Consequently, wheat stocks in major exporting countries continued to shrink. Initial projections put the 1974/75 world wheat crop at 375 million tons, 2% larger than last year. However, continued strong demand in Asia, Africa, and Latin America will offset smaller Soviet purchases—and the recent high levels of world trade should continue.

RECORD FEED GRAIN SUPPLIES IN OFFING . . . Because of the small carryover (22½ million tons) of old crop feed grains forecast for October 1, the 1974 crop will become the virtual supply for the 1974/75 marketing season. USDA economists' projected level of production plus carryover gives a 1974/75 supply of 258 million tons, 9% above the current season and 4% above the record in 1972/73.

FEED GRAIN USE AT HOME IN 1974/75 is forecast at around 177 million tons, 2% larger than this year. The use boost is based on the outlook for 3% more grain consuming animal units (for a total of 117½ million), plus a feeding rate near this year's 1.37 tons per animal. Live-stock-feed price ratios also will likely improve from 1973/74's unfavorable levels.

FEED GRAIN EXPORTS in the upcoming season are projected at 42 million short tons, virtually the same as this year. That would put total 1974/75 disappearance close to 219 million tons, up 1-2% from both this season and last. Carryover at the end of 1974/75 is projected at nearly 39 million tons, well above the small amount foreseen for this October 1 but still below levels of most recent years. Much of the carryover would be in corn at about a billion bushels, more than twice the volume expected at the end of this season.

PRICES COULD DROP . . . U.S. feed grain prices in 1974/75 will hinge on the outcome of production and demand in other countries as well as the size of the U.S. crop. If 1974 crops around the world are fairly normal, and the U.S. crop turns out close to USDA projections, prices could drop dramatically. Corn prices at the farm at harvest time this fall could sink below \$2 a bushel say economists. Prices at this level would be fine for the domestic livestock industry—which has been caught in a cost-price squeeze—but not so good for cash corn producers who will have record high production costs. Costs of most inputs used in producing grains are up—for corn, variable costs of production per acre are expected to gain by as much as a fourth in 1974.

SURGE IN COTTON . . . Despite the skimpy 3½-million-bale carryover on August 1, cotton supplies in 1974/75 may be the largest since 1968/69 in view of the prospective increase in the 1974 crop. Such a supply would certainly be adequate for the 13-million-bale disappearance economists envision in 1974/75. In addition, there's likely to be some rebuilding of stocks by the start of the next marketing year.

MILL CONSUMPTION . . . If competitive manmade fiber supplies remain tight in relation to demand, mill consumption of cotton in 1974/75 could increase slightly from last season's estimated 7½ million bales. Energy-related production problems are holding the 1974 manmade fiber output gain below the 10 to 15% annual increases of recent years. Still, indications point to a possible upturn in synthetic fiber production in late 1974. So prospects for larger cotton use during 1974/75 are deteriorating and little, if any, gain in consumption is expected.

OVERSEAS SALES . . . U.S. cotton exports during the 1974/75 season are projected at 5½ million bales, down about ½ million from last marketing year. The continued strong demand level reflects prospects for moderately larger cotton use overseas, coupled with perhaps a smaller gain in world production. Reported U.S. export sales for 1974/75 already total over 3 million bales and adding the backlog of shipments from 1973/74 results in a total export commitment of well over 4 million bales at this early date. Additional sales are likely. The continuing strong foreign demand for U.S. cotton reflects several factors. One is the failure of production abroad to keep pace with increasing consumption. Expansion in foreign cotton acreage has been hindered both by acreage shifts to food crops and natural disasters. Also contributing to our exports is the desire of foreign countries to carry larger stocks. This is in contrast to the situation in the 1960's when the United States was generally the world's residual supplier.

EXOTIC EXPORTS . . . Today's international trading of agricultural products includes some pretty exotic goods. Take ginseng. This medicinal plant is a big item in Hong Kong, which bought over \$8 million worth from us last year. Then we sold licorice extract to Denmark and West Germany, and nearly \$35 million worth of beef liver and tongue to France. Japan, by far our biggest customer, bought everything from fresh lemons to feather meal.

AND IMPORT ODDITIES . . . On the import side, our international shopping list also included such oddities as canned pimientos—nearly \$3 million worth last year from Spain alone. Also on the import list were \$14 million worth of canned Mandarin oranges from Japan; 11 million pounds of fresh garlic from Mexico; and nearly 1 million gallons of champagne from France. We bought cinnamon from the Seychelles; cashews from Mozambique; and more than \$1 million worth of fine animal hair—mostly cashmere and camel hair—from Outer Mongolia.

Statistical Barometer

Item	1972	1973	1974—latest available data	
Prices:				
All prices received by farmers (1967=100)	126	172	165	June
Prices paid, interest, taxes, and farm wage rates (1967=100)	127	145	166	June
Ratio ¹ (1967=100)	118	118	99	June
Consumer price index, all items (1967=100)	125	131	144	April
Food (1967=100)	141	153	159	April
Farm Income:				
Volume of farm marketings (1967=100)	112	110	101	4
Cash receipts from farm marketings (\$bil.)	60.7	83.4	103.0	4
Crops (\$bil.)	25.1	38.1	--	
Livestock (\$bil.)	35.6	45.3	--	
Realized gross farm income (\$bil.)	68.9	90.5	108.2	4
Production expenses (\$bil.)	49.2	64.4	80.0	4
Realized net farm income (\$bil.)	19.7	26.1	28.2	4
Income and Spending:				
Disposable personal income, total (\$bil.)	797.0	882.6	930.5	4
Expenditures for food (\$bil.)	125.0	139.0	149.8	4
Share of income spent for food (percent)	15.7	15.8	16.1	4
Farm Food Market Basket:²				
Retail cost (1967=100)	121	142	160	April
Farm value (1967=100)	124	164	174	April
Farmer's share of retail cost (percent)	40	45	42	April
Food Consumption Per Capita:³				
Total (1967=100)	103.7	102.0	103.6	4
Animal products (1967=100)	103.6	99.3	101.3	4
Crops (1967=100)	103.9	105.3	106.4	4
Agricultural Trade:				
Agricultural exports (\$bil.)	9.4	17.7	7.8	Jan.-Apr.
Agricultural imports (\$bil.)	6.5	8.4	3.5	Jan.-Apr.
Hogs and Pigs:				
Hogs and pigs on farms, June 1 (million)	60.7	60.0	59.4	June
Kept for breeding (million)	9.2	9.0	8.9	June
Market (million)	51.5	50.9	50.5	June
December-May pig crop (million)	47.7	46.2	45.1	June
June-November pig crop (million)	43.2	42.0	--	June
Expected 1974 June-November pig crop (million)	--	--	41.5	June

¹Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates.

²Average quantities per family and single person households bought by wage and clerical workers, 1960-61, based on Bureau of Labor Statistics figures.

³Civilian consumption only.

⁴Annual rate, seasonally adjusted, first quarter.

AGRICULTURAL SITUATION

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GERALDINE SCHUMACHER, EDITOR

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